



## **The observation at Chofu of Doppler-shifts of subionospheric LF signal transmitted from Saga, and the mechanism of lithosphere-atmosphere-ionosphere coupling**

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This paper is based on the measurement at Chofu(CHF) of subionospheric signals from an LF transmitter, JJY (frequency=60kHz) (transmitted from Saga, Kyushu). The data analysis was done for the 6-month period from January 1, 2009 to June 30, 2009, during which several earthquakes happened near the propagation path of JJY-CHF. The Doppler-shifts of subionospheric LF signals are considered to provide the significant direct information in the lower ionosphere. It is found that we could detect the significant increase in the AGW and AW components of Doppler-shifts several days before each earthquake. This fact provides a definite strong support to the AGW channel of the lithosphere-atmosphere-ionosphere-coupling.